

Date: Thu, 13 Jan 94 08:13:06 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #33
To: Info-Hams

Info-Hams Digest Thu, 13 Jan 94 Volume 94 : Issue 33

Today's Topics:

 Daily Summary of Solar Geophysical Activity for 11 January
 Dipoles Fed By Ladder Line (2 msgs)
 GB2ATG (January 1994)
 Portable 2m Antenna for Mountaineering???
 When will my license expire?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 11 Jan 1994 21:30:42 MST
From: swrinde!sgiblab!darwin.sura.net!math.ohio-state.edu!cyber2.cyberstore.ca!
nntp.cs.ubc.ca!alberta!adec23!ve6mgs!usenet@network.ucsd.edu
Subject: Daily Summary of Solar Geophysical Activity for 11 January
To: info-hams@ucsd.edu

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DAILY SUMMARY OF SOLAR GEOPHYSICAL ACTIVITY

11 JANUARY, 1994

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(Based In-Part On SESC Observational Data)

SOLAR AND GEOPHYSICAL ACTIVITY INDICES FOR 11 JANUARY, 1994

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 011, 01/11/94
10.7 FLUX=101.1 90-AVG=102 SSN=056 BKI=0143 2533 BAI=016
BGND-XRAY=B2.8 FLU1=9.7E+05 FLU10=1.0E+04 PKI=2133 2543 PAI=015
BOU-DEV=004,009,042,024,017,072,029,031 DEV-AVG=028 NT SWF=00:000
XRAY-MAX= C1.8 @ 0417UT XRAY-MIN= B2.1 @ 2251UT XRAY-AVG= B3.9
NEUTN-MAX= +003% @ 0440UT NEUTN-MIN= -002% @ 2305UT NEUTN-AVG= -0.1%
PCA-MAX= +0.1DB @ 1745UT PCA-MIN= -0.3DB @ 1505UT PCA-AVG= -0.0DB
BOUTF-MAX=55349NT @ 1500UT BOUTF-MIN=55310NT @ 1651UT BOUTF-AVG=55340NT
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+071,+000,+000
GOES6-MAX=P:+161NT@ 1753UT GOES6-MIN=N:-062NT@ 0639UT G6-AVG=+095,+020,-018
FLUXFCST=STD:095,094,094;SESC:095,094,094 BAI/PAI-FCST=025,015,015/025,015,015
KFCST=3445 4433 3344 3222 27DAY-AP=009,019 27DAY-KP=2233 3221 1334 4434
WARNINGS=*SWF;*AURMIDWCH
ALERTS=
!!END-DATA!!

NOTE: The Effective Sunspot Number for 10 JAN 94 was 60.4.
The Full Kp Indices for 10 JAN 94 are: 2- 1- 1o 1o 2- 1- 1+ 1o

SYNOPSIS OF ACTIVITY

Solar activity was low. Region 7648 (N07W37) produced several small C-class flares. This region, and abutted Region 7650 (N05W27) were generally stable. The trailer of 7648 is intruding upon the leader of Region 7650 creating high magnetic gradients there.

Solar activity forecast: solar activity should be very low to low. An isolated M-class flare remains a possibility from the 7648/7650 complex.

STD: A full-disk Yohkoh x-ray image has been appended to this report, showing the position of the coronal hole and the strong, broad emissive area covered by departed Regions 7646 and 7645. It is interesting to note that intense Fe X emissions were also observed from these regions as they departed the west limb, in addition to the moderate Ca XV emissions reported earlier.

The geomagnetic field was quiet to unsettled until approximately 1500Z when the field became disturbed. Mid latitudes went to active to minor storm levels. Some high latitude sites experienced major to severe storm conditions. The coronal hole in the southwest is the likely source of

this disturbance. The time of onset is slightly earlier than expected.

Geophysical activity forecast: the geomagnetic field should be at active to minor storm levels for 12 Jan. Local nighttime sectors could experience major storm conditions. Near active levels are forecast for 13-14 Jan with some minor storm periods possible during that time.

Event probabilities 12 jan-14 jan

Class M	20/20/20
Class X	05/05/05
Proton	05/05/05
PCAF	Green

Geomagnetic activity probabilities 12 jan-14 jan

A. Middle Latitudes

Active	50/40/35
Minor Storm	30/20/15
Major-Severe Storm	05/05/01

B. High Latitudes

Active	50/40/35
Minor Storm	30/20/15
Major-Severe Storm	05/05/01

HF propagation conditions were near-normal over the low and middle latitudes. High and polar latitudes were also near-normal until approximately 12:00 UTC when minor signal instabilities began to be noticed with the onset of enhanced geomagnetic and auroral activity. Conditions deteriorated rapidly thereafter. Barely usable propagation was observed between approximately 17:00 and 19:30 UTC, with some upper middle latitude regions also noticing degradation. Effects were most pronounced during the local night-sectors. Conditions then showed some improvements for the remainder of the day. Propagation is expected to be unstable over the higher latitudes during the next 24 to 48 hours. Fair to occasionally very poor propagation can be expected. Middle and low latitude regions should remain near-normal with night-sector conditions occasionally dipping to fair levels, particularly on circuits approaching the proximity of the auroral ovals. Conditions should begin improving on 13 or 14 January.

COPIES OF JOINT USAF/NOAA SESC SOLAR GEOPHYSICAL REPORTS

REGIONS WITH SUNSPOTS. LOCATIONS VALID AT 11/2400Z JANUARY

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-----
NMBR LOCATION  LO  AREA  Z   LL   NN MAG TYPE
7648  N07W38   020   0220 EAO  12   013 BETA
7650  N05W28   010   0140 DAI  09   023 BETA
REGIONS DUE TO RETURN 12 JANUARY TO 14 JANUARY
NMBR LAT    LO
NONE
  
```

LISTING OF SOLAR ENERGETIC EVENTS FOR 11 JANUARY, 1994

```

-----
BEGIN  MAX  END  RGN   LOC   XRAY  OP 245MHZ 10CM  SWEEP
NONE
  
```

POSSIBLE CORONAL MASS EJECTION EVENTS FOR 11 JANUARY, 1994

```

-----
BEGIN          MAX          END          LOCATION  TYPE  SIZE  DUR  II IV
NO EVENTS OBSERVED
  
```

INFERRED CORONAL HOLES. LOCATIONS VALID AT 11/2400Z

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-----
ISOLATED HOLES AND POLAR EXTENSIONS
EAST  SOUTH  WEST  NORTH  CAR  TYPE  POL  AREA  OBSN
56   S49E57 S49E57 S34W43 S28W33 347  EXT  NEG  029 10830A
  
```

SUMMARY OF FLARE EVENTS FOR THE PREVIOUS UTC DAY

```

-----
Date   Begin  Max   End   Xray  Op Region  Locn      2695 MHz  8800 MHz  15.4 GHz
-----
10 Jan: 0323  0333  0348  B8.1
        0412  0420  0427  B7.5
        0439  0442  0443  B6.3
        1002  1005  1010  B4.5
        1126  1129  1134  B4.7
        1303  1308  1321      SF  7648  N07W18
        1734  1735  1738      SF  7648  N06W21
        1941  1945  1950  B7.2
        2048  2052  2055  B6.2
        2132  2135  2137  B9.5  SF  7648  N07W23
        2311  2316  2322  C1.3  SF  7648  N07W27
  
```

.....

Total Events: 011 optical and x-ray.

NOTES:

Acronyms used to identify sweeps and optical phenomena include:

-

Date: 13 Jan 94 15:49:01 GMT
From: news-mail-gateway@ucsd.edu
Subject: Dipoles Fed By Ladder Line
To: info-hams@ucsd.edu

Text item: Text_1

>Anyone have an opinion on my going to ~260 ft (yes, I do have room),
>especially regarding performance on higher bands (40-10 meters).
>Brian WY2G

Brian, just one thing to add to the earlier responses. An antenna of this sort has very little broadside radiation when the length is more than one wavelength. My North/105' CF has a half-wave resonant frequency of around 4.5 MHz. On 17m, the lobes are at N55E,N55W,

Date: 13 Jan 94 15:57:01 GMT
From: news-mail-gateway@ucsd.edu
Subject: Dipoles fed by ladder line
To: info-hams@ucsd.edu

Text item: Text_1

>Anyone have an opinion on my going to ~260 ft, especially regarding
>performance on higher bands (40-10 meters). Brian WY2G

Brian, one thing to remember about this kind of antenna is that above around one wavelength, there is almost no broadside radiation. A North/South 105' CF has lobes at N55E, N55W, S55E, and S55W on 17m. When I put it up I aimed it broadside at Europe and heard nothing from Europe. After using ELNEC to view the four lobes, I rotated it 35 degrees and Europe came in like gangbusters.

73, Cecil, kg7bk@indirect.com

Date: Tue, 11 Jan 1994 09:26:00 -0700
From: qualcomm.com!vixen.cso.uiuc.edu!howland.reston.ans.net!math.ohio-state.edu!cyber2.cyberstore.ca!nntp.cs.ubc.ca!alberta!adec23!ve6mgs!usenet@network.ucsd.edu
Subject: GB2ATG (January 1994)
To: info-hams@ucsd.edu

BARTG * GB2ATG * NEWS * BARTG * NEWS * GB2ATG * BARTG

This is the - British Amateur Radio Teledata Group - News Broadcast Service for all Amateurs and Short Wave Listeners interested in RTTY Amtor, Pactor and Packet Radio.

This news is broadcast during the first full week commencing Monday each month, to the following schedule..

Evening transmissions at 1930 GMT. on 3.584 MHz. Mark. +/- for QRM.
RTTY on Monday-AFSK, Wednesday-AFSK, and Friday-FSK.
Pactor-FEC on Tuesday.
Amtor-FEC on Thursday and Saturday.

Morning transmission at 1000 GMT. on 7.041 MHz. Mark. +/- for QRM.
RTTY on Sunday-AFSK.

An edited version of this bulletin is available on the Packet network as a BARTG @ GBR. file thanks to: Andy (G3ZYP) @ GB7MXM.#36.GBR.EU.

It is also posted on the "INTERNET" system via the INFO-HAMS list on UCSD.EDU. thanks to Iain (G6ARO) who is available on the "JANET" network as Iain @UK.AC.HUMBER.

News for January 1994. Bulletin No. 013. (all times are GMT).

BARTG Information.

GB2ATG editor would welcome 2 more volunteer transmit stations for 3.5 MHz. on week-day or Saturday evenings. Bulletins are supplied on disk to almost any IBM compatible format so no typing required. I would particularly welcome an offer from the North of England or Scotland to serve that geographical area. Please write or telephone for further details to: Bob (G0ARF).

RTTY DX Activity.

The HF bands have not been in very good shape over the last month but several short openings provided the following:

14 MHz.

FK8GS and ZL1KN 0730, CN8NP 0800, ZL1SY, LU2ATR and BY1QH 0830,
VK2RT 0900, IC8BNK 1000, VP9/WB2RAJ 1230,
VK5GY, S51GL and 4L8A 1400, A43YY and VQ9WL 1430,
VQ9TV, EA6MQ and UJ8JCQ 1500, TK5ML 1530,
CH2STN and J28JJ 1600, 9M2MW 1630,

21 MHz.

CU3EM 1100, CU1AC and LU2DGO 1600,

14 MHz Pactor.

7Z1AB 1400, HS1ASC 1600.

QSL Information.

VP9/WB2RAJ to home call. 4L8A (Tbilisi, Georgia) via OZ1HPS.

CH2STN was on Jesus Isl, a Canadian PQ14 area contest site.

QSL via VE2STN.

Contests.

The Spanish EA-RTTY contest starts 1600 February 12 until 1600 February 13 on all 5 HF bands 80 through 10 meters.

Four classes:

A) Single operator all band.

B) Single operator single band.

C) Multi operator all band.

D) Short Wave Listener.

Exchange for EA stations is RST plus "Prefijo Provincial" (52 total)

eg. - B, M, PM, VA, etc. All others give RST plus CQ zone.

Copies of rules and sample log sheets from the editor if sase enclosed.

Deadline for logs 15th April 1994 to:

EA RTTY contest manager. (EA1MV). Antonio Alcolado, P.O. Box 240,
09400 Aranda de Duero (Burgos), Spain.

Notes of interest.

The long awaited DX-Pedition to Peter 1st Island (3Y) should be QRV all bands and modes from February 1 through 14. KYFC.

(IC8BNK) is on the Isle of Capri, IOTA EU-031.

Peter (XT2BW) takes 2 months leave in Ghana from the end of January. He hopes to obtain a license and be QRV (9G) when time permits. We all hope to get some RTTY from him following his splendid service from Burkina Faso.

(A43YY) was operating from the Royal Omani Amateur Radio Field Day camp.

DXCC. The ARRL Awards Committee voted 6 for 1 against accepting the ARRL DX Advisory Committee (DXAC) recommendation to create an Honour Roll for RTTY DXCC. Qualification for the new Honour Roll is the same as for Mixed Honour Roll. This move makes it possible to achieve DXCC Honour Roll "All RTTY" for the first time.

Good news from Nikos (SV2WT) that Monk Apollo is active again on the HF bands as (SV2ASP/A) from Mount Athos. With equipment provided by Minoru JA3MNP and other JA stations, we all hope to find Mount Athos QRV RTTY in the coming months.

Thanks this month to:.

G3ZYP, DXNS, OPDX/BARF80.

BARTG caters for all DATA interests with information-components-kits -ready built units and software from experts. Members receive a 120 page quarterly journal devoted to data modes. Beginners guides for most data modes are available. The group sponsors HF and VHF RTTY contests, administers its own DX and members award scheme and runs an annual rally.

This copy of BARTG News is posted by Iain Kendall (G6AR0) who can be contacted via Internet e-mail at.. iain@humber.ac.uk Items for inclusion in the broadcast may also be mailed to this address, as well as any queries regarding membership or services offered by BARTG.

Copy of the news as distributed by G0ARF 931229

Date: Wed, 12 Jan 1994 03:35:37 GMT
From: qualcomm.com!vixen.cso.uiuc.edu!howland.reston.ans.net!
europa.eng.gtefsd.com!emory!kd4nc!ke4zv!gary@network.ucsd.edu
Subject: Portable 2m Antenna for Mountaineering???
To: info-hams@ucsd.edu

In article <2gv7jp\$3e0@netfs.dnd.ca> mercer@dgs.dnd.ca (David Mercer) writes:
>I am an avid climber/backpacker etc and want to be able to use my HT in
>the backcountry. I require a design for an antenna (with better gain
>than my rubber duck) that is light, easily packable, and not too bulky,
>which will allow me to work repeaters in the 2m band. In case it
>matters, most (but not all) of the use will be from mountain tops.
>
>Obviously, a 1/2 wave diapole is a candidate but I was wondering if
>there are any others?
>
>How about a boom that can be disassembled? A flexible J pole? I would
>appreciate any and all suggestions.

Obviously a roled up twinlead J-pole will offer better performance than the rubber dummy load, and it's easy to carry in the pack. However, if you're really in the back country, a collapsable beam will be much better. Simple designs based on folding elements from common TV antennas are available. You can slip the folded antenna into a PVC tube and use that as a walking stick. When you're ready to operate, the PVC can double as a short mast.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 13 Jan 94 14:34:35 GMT
From: ogicse!uwm.edu!fnnews.fnal.gov!att-in!att-out!cbnewst!waco@network.ucsd.edu
Subject: When will my license expire?
To: info-hams@ucsd.edu

In article <9401120004591.jtriolo.DLITE@delphi.com> jtriolo@delphi.com

>>You are required to be in possession of your license or a copy to operate
>>a radio. You should get a replacement from the FCC even if you don't
>expire
>>soon. I think you need FCC form 610 to get a replacement, but I'm not
>sure.
>
>Yes, you will need to file a form 610 for a replacement license, but it's
>not necessary to go through a VEC to submit it. You can mail it to
>Gettysburg yourself. I think they might automatically give you a new
>expiration date (that is, your license would be good for 10 years from the
>issue date of the replacement ticket).

This is probably true. When I moved a few years ago and sent in a 610 for
a change of address, I got a new license with a new expiration date.

>
>73 de Jason, KD4ACG

73,

John, WB9VGJ

```
=====
John L. Broughton | snail mail: Room 1K-322
AT&T              |                1200 E. Warrenville Rd.
                  |                P.O. Box 3045
                  |                Naperville, IL 60566-7045
                  |                (708) 713-4319
                  |                e-mail: john.l.broughton@att.com
                  |                att!john.l.broughton
                  |                air mail: WB9VGJ
=====
```

Date: Wed, 12 Jan 1994 03:18:18 GMT
From: qualcomm.com!vixen.cso.uiuc.edu!howland.reston.ans.net!

europa.eng.gtefsd.com!emory!kd4nc!ke4zv!gary@network.ucsd.edu
To: info-hams@ucsd.edu

References <1994Jan2.212541.3319@cmkrl>, <2gs9mk\$gd6@aurns1.aur.alcatel.com>,
<CJFv2M.pr@cnsnews.Colorado.EDU>y
Reply-To : gary@ke4zv.atl.ga.us (Gary Coffman)
Subject : Re: why 29.94 fps?

In article <CJFv2M.pr@cnsnews.Colorado.EDU> collinsn@spot.Colorado.EDU (Neil Collins) writes:

>
> From publication 432: "Frequency Calibration Service Using Network
>Television: For those users who require only frequency calibrations,
>an alternative to the radio broadcasts is available. This service provides
>a means of calibrating oscillators traceable to NBS. It gives the user
>the option of calibrating his oscillator quickly at very low cost, with
>modest accuracy, or of expending more time and money for higher accuracy."
>
> "The service is very reliable because the networks use extremely
>stable rubidium or cesium oscillators to generate the 3.58MHz color
>subcarrier frequency which is transmitted with all color programs. The
>color signal is then used as a transfer standard. Any oscillator that
>has a frequency of 10/N MHz, where N is any integer from 1 to 100, can
>be calibrated.".

Unfortunately publication 432 is out of date here. The nets don't work this way anymore, and haven't since the late 1970s, as has been noted previously in this thread. Using broadcast colorburst will only give you a reference that's the local crystal oscillator at the local broadcast outlet. It's likely no more accurate than your own crystal oscillator, about 4 ppm. NIST should circulate a retraction of this technique because it's likely still misleading folks. (They may have issued one, but I haven't seen it.)

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: Wed, 12 Jan 1994 03:23:39 GMT
From: qualcomm.com!vixen.cso.uiuc.edu!howland.reston.ans.net!usc!
elroy.jpl.nasa.gov!swrinde!emory!kd4nc!ke4zv!gary@network.ucsd.edu
To: info-hams@ucsd.edu

References <CJFF8p.56v@spk.hp.com>, <1994Jan11.150658.25191@ke4zv.atl.ga.us>,
<2guq4i\$m3t@news.acns.nwu.edu>swrinde
Reply-To : gary@ke4zv.atl.ga.us (Gary Coffman)
Subject : Re: BRAIN CANCER, LEUKEMIA FROM HAM RADIO

In article <2guq4i\$m3t@news.acns.nwu.edu> rdewan@casbah.acns.nwu.edu (Rajiv Dewan)
writes:

>In article <1994Jan11.150658.25191@ke4zv.atl.ga.us>,
>Gary Coffman <gary@ke4zv.atl.ga.us> included a FAQ on radiation.
>
>Thanks for including it Gary. I enjoyed reading it and learnt a lot
>from it. The following paragraph about microwave ovens caught my attention:
>
>>The molecular vibration caused by MW is how and why a MW oven works -
>>exposure of the food to the microwaves causes water molecules to vibrate and
>>get hot. MW and RF penetrate and heat best when the size of the object is
>>close to the wavelength. For the 2450 MHz (2.45 billion Hz) used in
>>microwave ovens the wavelength is 5 inches, a good match for most of what we
>>cook.
>
>And I thought that this frequency was picked because it was close to
>a resonant frequency of the O-H bond present in water, sugars and fats -
>common though often undesired components of what we eat.

That's true. The faq is saying two separate things here. First it's
noting that 2.45 GHz excites water molecules. And second it's saying
that an object tends to absorb RF best when the wavelength, actually
half wavelength, matches the size of the object. That's because
maximum E (or H) field difference is developed across it.

Note: 2.45 GHz is *not* a resonant frequency for water molecules,
but water does absorb significantly at this frequency.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: Tue, 11 Jan 1994 15:56:22 GMT
From: haven.umd.edu!darwin.sura.net!math.ohio-state.edu!news.acns.nwu.edu!
news.eecs.nwu.edu!gagme!n5ial!jim@ames.arpa
To: info-hams@ucsd.edu

References <1994Jan8.170346.3051@n5ial.mythical.com>,

<2gsahs\$abt@ornews.intel.com>, <CJFoGs.2vo@ucdavis.edu>
Subject : Re: I need a terminal program for 2 TNCs at once

In article <CJFoGs.2vo@ucdavis.edu> ez006683@othello.ucdavis.edu
(Daniel D. Todd) writes:

> On a related line. What good terminal programs allow for
> individual windows for each stream in multiuser mode. It would also be
> nice to have a window to monitor other QSO's without all the extra
> garbage.

I may be way off here---I'm not sure exactly what you're after. If you're
looking for something that helps when multiple people are involved in a
single conversation, say on some BBS with a conferencing bridge, etc.,
then I've got nothing for you. :-(

If, however, you're looking for something that does this for ``normal''
packet use, and you just want each active stream in its own window, as
well as another window for monitor output, you might want to get with
me about KAMterm. It isn't a Windows program---it's plain text mode, but
it does have multiple windows (each active stream has its own window, and
each of these takes up lines 0-20, or something like that..., of the
screen). KAMterm is currently only available for dos, but I'm slowly but
surely working on a UNIX version.

Later,
--jim

--
73 DE N5IAL (/4) < Running Linux 0.99 PL10 >
jim@n5ial.mythical.com ICBM: 30.23N 86.32W
|| j.graham@ieee.org Packet: N5IAL@W4ZBB (Ft. Walton Beach, FL)
E-mail me for information about KAMterm (host mode for Kantronics TNCs).

End of Info-Hams Digest V94 #33

